



A REVIEW.....

An overview of constraint analysis for improvement of dairy farming profession in India

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ABSTRACT.....Strategic planning of various projects and schemes regarding dairy farming made India, a top milk producer of the world. The history of these projects is very inserting and important for future planning to achieve new benchmarks in dairy sector. Since, India lags behind in global trade of milk and milk products, the different constraints of dairy farming in various regions of India need to take care of in order to enhance desired growth and economy in dairy sector.

KEY WORDS..... Dairy farming, Milk, Milk products, Projects

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INTRODUCTION.....

Development of dairying in India has an interesting background. It was nearly four decades ago when the white revolution began and the dairy sector in India took a leap forward to put the country on top of the world in terms of milk production. Earlier to that, until the year 1955 or so, the milk production was stagnant and the per capita milk availability was negligible. With the beginning of the first five year plan in 1951, India gave a new look to the cattle breeding policy. In late sixties and early seventies, several projects like key village scheme (KVS) and intensive cattle development project (ICDP) were initiated giving way to the adoption of crossbreeding in cattle.

The launch of operation flood I, in the year 1970 revolutionized the dairy sector by organizing dairy farmer's co-operatives in the rural areas and connecting

them with the urban consumers through a huge net work of milk procurement, processing and distribution of milk to lakhs of villages in rural India. The beauty of this program was that it made the small holder milk producers a kingpin of India's dairying business through milk produce's cooperative societies. Operation Flood I (1970-1981) was followed by Operation Flood II (1981-1985) and Operation Flood III (1985-1994). Several bull mother farms were established for production of exotic and crossbred bulls.

During the past four decades, the milk production in the country has surpassed 119 million tons and the per capita milk availability increased from 112 g in 1969 to more than 280 g in 2010-2011. Further, the dairy sector has become a major source of employment and it supports nearly 10 million farmers through more than one lakh co-operative societies existing in the country. A large

society like MILKFED in Punjab has a work force of about 5000 employees and gives employment to another 10,000 workers engaged in milk procurement and supply.

A look at the constraints :

In spite of spectacular achievements in milk production and other aspects of dairying, India's share in the global trade is less than 1 per cent. In order to become globally competitive and tapping the global dairy market to India's advantage, there is a need to switch to

scientific management of all dairy operations including breeding, feeding, rearing and health care of animals and clean milk production. The focus has also to be on developing a range of value-added products and improve on processing methods. In order to bring out this transformation first we have to examine where we stand and what are the constraints limiting dairy production operations in India.

The present review attempts to highlight various constraints faced by the dairy farmers in different regions

Table 1: Constraints faced by dairy farmers in different regions of the country (listed in order to priority)

Attributes	Regions				
	Northern (Uttarakhand)	Western (Rajasthan)	North-eastern (Nagaland)	Southern (Chennai)	Central (Nagpur)
Feeding	High cost of feed and mineral mixture	High cost of green, dry feed and concentrates	Low availability and high cost of concentrates	High cost of feed	High cost of concentrates and other feeds
	Non-availability of green fodder	Non-availability of green fodder throughout the year	Lack of availability of green fodder		Shortage of green fodder
	Irregular and inadequate supply of cattle feed	Lack of knowledge about mineral mixture	Inadequate knowledge about balanced feeding		
Breeding	Unavailability of indigenous bulls of high genetic merit	Poor AI services	Repeat breeding in cows	Lack of knowledge in rearing livestock	Poor AI services
	Poor conception rate through AI	Lack of pedigree bulls for natural service	High Incidence of Reproductive disorders		
	Irregular availability of semen at AI centre	Repeat breeding problem in dairy cows			
Health	Poor treatment services in hospitals	Lack of knowledge about vaccination	Improper treatment services	Prevalence of diseases	Inadequate knowledge about diseases management
	Irregular visits of veterinary staff	Lack of knowledge about isolation of sick animals	Problem of heat detection in cows		Poor veterinary services
	Non-availability of vaccines				
Others	Non-remunerative price of milk	Low price of milk offered by co-operative societies	Low price of milk	Lack of marketing information	Lack of preservation facility knowledge about disease control
	Lack of knowledge about market strategy	Irregular payment by cooperative societies and milk vendors	Delay in payment by unorganized sector	Low price of livestock products	Delay in payment by co-operative society
			Lack of knowledge about improved dairy practices		Inadequate
References	Bhoj <i>et al.</i> (2014)	Narayan <i>et al.</i> (2014)	Khovel <i>et al.</i> (2012)	Varathan <i>et al.</i> (2012)	Shurkar <i>et al.</i> (2014) and Patil <i>et al.</i> (2009)

of the country based on published reports. Table 1 lists various constraints region-wise.

Region-wise constraints :

This gives us a clear picture of the whole country of what constraints are limiting the growth of our dairy industry and which are the main grey areas. A summarized view of the same is presented below.

All the respondents have placed high cost of animal feeds, especially concentrates, as a major constraint. Non-availability of green fodder has also been cited by most respondents. This is a serious constraint of national importance. Kurup (2002) from National dairy development board has observed that there is a widening deficit in the supply of feeds and fodders country wide. It has been estimated that deficit of concentrates, dry fodder and green fodder is to the extent of 47 per cent, 31 per cent and 23 per cent, respectively.

Non-availability of pedigreed bulls of indigenous as well as exotic breeds has been cited as an impediment by all the researchers. At some places, customers preferred natural service and cited shortage of high-pedigreed bulls for this purpose as a constraint.

Poor AI services and irregular availability of semen at AI centers is the chief constraint at most of the places. India has perhaps the largest AI network in the world with more than 70 frozen semen production stations but the quality of AI services is poor and even in cattle less than 20 per cent breedable cows are covered by AI.

Under Health, the chief constraints were : poor veterinary services for treatment, lack of facilities for vaccination, de- worming and treatment against ectoparasites.

Almost all respondents have viewed reproductive disorders like anestrus, repeat breeding and infertility in dairy animals, especially crossbred cattle, as a major impediment.

Non-availability of chilling facility of milk at village level was the constraint at some stations

Under marketing, non remunerative prices for milk were the chief constraint. Also, lack of finance and credit in dairy business was the main impediment.

Lack of knowledge about scientific rearing and upkeep of dairy animals (feeding, breeding and health care) among animal keepers is one of the constraints. There is a need to give them short training in these areas.

The global challenge and what needs to be done :

In the background of fast changing global trade regime, more scientific management of all dairy operations including clean milk production, processing, preservation, storage and transport of milk and milk products are required. Most experts believe that following key areas of concern needs to be addressed on priority.

Focus on brand “Buffalo”: India’s dairy industry is unique with the availability of large proportion of buffalo milk which has its own attributes especially Mozzarella cheese and other special milk products. The country can take a lead in milk products made out of buffalo milk.

Value addition of the dairy foods through the development of newer biotechnological and micro and nanotechnological approaches is required to bring in a new era of foods that would address the future needs of the human population. Characterization and development of new strains of dairy starters, probiotics and rumen microbes would help to develop newer milk based products.

Clean milk production is an essential pre-requisite for making milk and milk products to the satisfaction of both Indian and foreign consumers and for promoting exports. For this purpose there is need to develop a simple scientific dairy animal management system. There is need to ensure quality control through application of newer chemical and biotechnological simple concepts.

Competitive cost of production: Increasing world demand for milk and dairy products would benefit those countries which have reduced cost of production. Therefore, India should strive for developing cheaper and economic technological tools for milk production which are competitive with the global scenario.

In order for India to become a leading player at world level, there is need to develop innovative production, processing and marketing infrastructure to meet international quality needs and standards.

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